

**SMALL HEPATOCYTE-RICH COLONIES, PROCESS FOR PREPARING THE
COLONIES, PROCESS FOR MATURATING THE COLONIES INTO LIVER TISSUE
AND METHOD OF ESTIMATING EFFECTS OF DRUG BY USING MATURED SMALL
HEPATOCYTE-RICH COLONIES**

ABSTRACT

[0109] The present invention provides a process for preparing a transplantable liver tissue, cell colonies suitable for the process, and a process for preparing them. At least about 70 % of the cells in the small hepatocyte-rich colonies of the present invention are small hepatocytes. In particular, each colony comprises about 10 to 30 cells and the number of the small hepatocytes is at least about 70 % based on the total number of the cells in the colony. A process for preparing such small hepatocyte-rich colonies is also disclosed. The present invention also discloses a process for inducing the maturation of the small hepatocyte-rich colonies into a liver tissue and a method of estimating the effect of a drug, particularly the effect thereof connected with normal liver function *in vitro*, using the cell colonies enriched with the small hepatocytes which have been induced to be matured.